



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

Memorandum To: Project Engineers  
Project Design Engineers

From: G. R. Perfetti, P. E.  
State Bridge Design Engineer

Date: October 6, 2008

Subject: OVERLAY THICKNESS AND BARRIER RAIL DETAILS

To ensure uniformity in the structure plans, the minimum overlay thickness for cored slabs and box beams shall be as follows:

- 1½" for asphalt, and
- 3½" for concrete.

For each span, detail the minimum and maximum overlay thickness at the gutterline. If the bridge has a normal crown cross-section, also include the minimum and maximum overlay thickness at the crest of the crown section.

In addition, detail the embedded barrier rail 'S' bar for the minimum overlay thickness, show the minimum height of the barrier rail, and place the following note on the plans:

***The minimum height of the barrier rail is shown. The height of the barrier rail varies while the top of the rail follows the profile of the gutterline.***

This policy is effective with the March 2009 letting. The standard drawings and notes have been updated, and the Design Manual will be revised at a later date.

GRP/GM

cc: T. K. Koch, P. E.  
R. A. Raynor, P. E.  
C. L. Jones, P. E.  
E. C. Powell, Jr., P. E., Attn: M.S. Robinson, P. E.  
D. D. Holderman, P. E.  
R. D. Rochelle, P. E.  
T. S. Drda, P. E., FHWA